



**Project name:** CARTA Facility  
Lighting Conversion

**Transit agency:** Chattanooga Area  
Regional Transportation Authority  
(CARTA)

**Location:** Hamilton County,  
Chattanooga, Tennessee

**TIGGER goal:** Energy and GHG  
emissions reduction

**FTA region number:** IV

**Award amount:** \$650,000

**Congressional district:** TN-3

**Funding mechanism:**  
Recovery Act (ARRA)

## ***CARTA Converts to LED Lighting to Improve Facility Energy Efficiency***

The Chattanooga Area Regional Transportation Authority (CARTA) is saving energy and reducing greenhouse gas (GHG) emissions by converting to energy-efficient lighting at several of its facilities.

With \$650,000 from the TIGGER Program, CARTA is replacing the fluorescent lights in 1,724 existing fixtures with new high-efficiency LED lights manufactured by Ohio-based LSI Industries. Lawson Electric Company, a local business, is installing the lights.

This project will reduce the electrical energy use at seven operating areas within CARTA's facilities, including parking garages associated with CARTA's downtown shuttle service and the bus barn and shop, service lane, steam room, and maintenance shop located at CARTA headquarters.

LED lighting is a widely-used, proven technology that will directly reduce CARTA's utility bills. The new LED lights consume 61% less energy than the



*The Chattanooga Area Regional Transportation Authority (CARTA) provides transit services to Chattanooga and surrounding Hamilton County in Tennessee. CARTA operates a diverse fleet of vehicles on 17 fixed-route bus lines and in paratransit and demand response services. CARTA operates 15 electric shuttle buses in the downtown area as well as two incline rail cars. Many of the vehicles used for the fixed-route, paratransit, and demand response operations are at or near the end of their service life, and CARTA plans to replace these vehicles with new technology electric and hybrid electric vehicles.*

Courtesy of CARTA



CARTA is replacing 1,724 fluorescent light fixtures at customer parking garages and throughout CARTA headquarters with high-efficiency LED lights.

old fluorescent lights. Additionally, the LED lighting is cooler than the old lighting, which means the facilities will use less energy for summer cooling.

By converting to high-efficiency LED lighting at its facilities, CARTA will reduce its annual electricity consumption by 1.3 million kWh and save \$120,000 per year. The LED lighting has a useful life of about 18 years, and CARTA will achieve payback on the initial capital investment in just over 5 years.

CARTA's reduced use of grid power will save money, reduce greenhouse gas emissions, and provide cleaner air for Chattanooga residents.

**Impact:**

These LED lighting improvements will reduce CARTA's annual electricity consumption by 1.3 million kWh and save \$120,000 per year.

**About TIGGER**

**The Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) Program** was established in 2009 by the U.S. Department of Transportation's Federal Transit Administration (FTA). Designed to reduce energy use and greenhouse gas emissions in transit agencies around the country, the TIGGER Program made funds available for capital investments that would reduce greenhouse gas emissions or lower the energy use of public transportation systems. An initial \$100 million in American Recovery and Reinvestment Act grants funded 43 competitively-selected transit projects. In 2010, the FTA provided an additional \$75 million in grants to fund 27 new TIGGER projects. These 70 projects are employing a variety of technologies to meet the program goals, including solar installations, building efficiency improvements, wind technology, wayside energy storage for rail, and purchase of more efficient buses. In fiscal year 2011, FTA provided an additional \$49.9 million to continue the program.

**For More Information**

CARTA:

[www.gocarta.org](http://www.gocarta.org)

FTA TIGGER:

[www.fta.dot.gov/TIGGER](http://www.fta.dot.gov/TIGGER)



U.S. Department of Transportation  
Federal Transit Administration  
1-866-377-8642

TIGGER FS - TN-77-0001 - October 2011